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ABSTRACT

The purpose of the project was to develop evaluation, guidance, and tutorial services to maximize the previous health related experience and education of people and to enable them to be placed, with advanced standing, into an existing practical nursing program. Because each student comes into a program with certain knowledge and abilities, Project Opportunity used the module approach to evaluate and identify areas to be learned. The individualized learning modules were based on task analysis and included pre- and posttesting, behavioral objectives, learning strategies, and self-evaluation. The results and accomplishments of the project included the development of challenge examinations, practical nursing modules, core curriculum, a secondary health careers program, surgical technician program, and the Dakota County pilot project. Project evaluations were based on: student performance, evaluation, and comments; and faculty participation and comments. The Dakota County evaluation and evaluations of the core curriculum and the secondary health careers program are also presented. Conclusions, implications, and recommendations of the project are discussed. A project materials evaluation questionnaire and its results are included. A list of the practical nursing modules, core curriculum requirements, and an outline of the health careers curriculum are appended. (Author/EC)

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FINAL REPORT

PROJECT NO. 2-D-74

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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RIE APR '76

PROJECT OPPORTUNITY
(AN INDIVIDUALIZED APPROACH TO TRAINING LICENSED PRACTICAL NURSES)

Research and Development Project
in Career Education

Conducted Using Grant Awarded by
Division of Vocational-Technical Education
Minnesota Department of Education
Under Part C/D of Public Law 90-576

The project reported herein was performed pursuant to a grant from the Division of Vocational-Technical Education, Minnesota Department of Education. Grantees undertaking such projects under Division sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Division position or policy.

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SUMMARY

A. The time period of this report is from June 14, 1971 to June 30, 1974.

B. The primary purpose of the project was to develop evaluation, guidance, and tutorial services to maximize the previous health related experience and education of people and to enable them to be slotted, with advanced standing, into an existing practical nursing program. The objectives are:

   1. To prepare materials to evaluate existing knowledge and skills of students entering our practical nursing program.
   2. To prepare learning packets designed to allow the student to pace his own learning.

C. Procedures followed:

   1. A survey of past and present students was done to identify if a need for advanced standing really existed.
   2. Test pools have been established for challenge examination by allowing all faculty members to contribute questions.
   3. Project Opportunity staff visited other schools using individualized instruction and/or core curriculum.
   4. Practical nursing faculty received inservice education in areas of task analysis, behavioral objectives and individualized instruction.
   5. Practical nursing faculty and Project Opportunity developed their own concept of individualization.

6. Project Opportunity developed its concept of core curriculum.
7. Modules of learning were written, implemented and evaluated.
8. Core curriculum materials were adopted into a high school exploratory program.

D. Results/Accomplishments

1. Test pools have been established.
2. The entire practical nursing curriculum has been completed into modules.
3. The entire core curriculum plan has been completed into modules.
4. The surgical procedures portion of the surgical technician program have been completed into modules.
5. The high school exploratory program has developed a curriculum plan which is available statewide.
6. A workshop on individualized instruction has been developed and implemented statewide.
7. Practical nursing modules have been disseminated widely.
8. A survey of all individuals receiving modules has been done.

E. Evaluation

Evaluation of the packets has been favorable, based upon observations of the students and faculty. Complete implementation of the practical nursing curriculum will be necessary to provide adequate evaluatory data.

F. Conclusions and Recommendations

As Project Opportunity concludes, it is recommended that:

1. The P.N. program use modules one more year within the time frame of a transitional program.
2. Open entry-open exit be seriously considered after staffing patterns and clinical facilities have been evaluated for a year round program (cost factor).
3. Audiovisual materials be developed to enhance existing modules.
4. Modules continue to be revised according to specific needs of programs.
5. Core materials be used by more health occupations programs.
6. Other health occupations programs consider individualizing their specific programs.
7. Consultant services be made available to programs who want to individualize.
8. Further evaluation of this approach be continued on an on-going basis.

I. INTRODUCTION

The scene is the office of the nurse-director of a practical nursing program in Anoka, Minnesota; the time is 1967 to 1970; the characters are real people. Enter prospective nursing students.

"I have 15 years of experience as a nursing aide. What type of credit can you give me in your practical nursing program?"

"I am a discharged Army corpsman. I did everything from minor surgery to air rescue. I would like to become an LPN as quickly as possible so that I can support my family. How much credit can you give me in your practical nursing program?"

"I took 1 1/2 years of a three year RN program about 20 years ago. I now have seven children to support and I would like to get my LPN license. How much credit can I get in your practical nursing program?"

The answer to all of these questions during the years from 1967 to 1970 was, "You will need to enroll at the beginning of the practical nursing program and take the entire course, because we do not have any way of knowing what information you have and what else you need to know."

II. PROBLEM

A. Unjustified Educational Barriers Thwart Career Mobility

The large number of requests for advanced standing caused the Anoka-Hennepin Area Vocational-Technical Institute or the Technical Education Center in Anoka, Minnesota (Anoka TEC) to begin taking a look at the curriculum and at the methods by which entrants were being evaluated. In the traditional system of practical nursing education, the student entered on DAY ONE; we assumed that he or she had no previous experience; he progressed through the program, taking all the material with the other stu-

dents and "marking time" during the material which was a repeat for him; and he then graduated on the last day of the program. In the traditional educational system, we assumed that the student was a "blank slate" upon entry; all students were treated equally, no matter how unequal they might have been in terms of previous experiences.

B. Career Mobility Conference adds the impetus needed to seek measures necessary to alleviate the ever present problem of mobility within the framework of nursing education.

The Minnesota Board of Nursing, in April of 1971, requested the Anoka program to work out procedures for giving qualified persons advanced standing in the practical nursing program. This was to include all persons with appropriate education or experience, not just in a nursing program. This was an outgrowth of the January 21-22, 1971 conference on career mobility in nursing held in Minneapolis. The Board of Nursing indicated that the project would not affect the accreditation of the practical nursing program.

C. Is there a need for advanced standing?

The first question to be resolved was that of need. Were the students who had asked about advanced standing unique? A survey was done which included all the graduates of the Anoka program since its inception four years before. There were 216 respondents (of a possible 233). Of the 216 who responded to the survey, 170 (roughly 79%) had previous health related experience or education.

Most of these had been nurse aides, but some had been psychiatric technicians, medical corpsmen, surgical technicians, or orderlies. There were several who had previously attended another health related program. A survey of the incoming practical nursing class in 1971 indicated that 78 1/2% (62 of 79 people) had previous education or experience. Several of the students had worked more than 10 years in a health occupation. There is no doubt that many of these people could have been admitted with advanced standing had this been available to them.

D. Statement of the problem as interpreted by Project Opportunity.

The problem becomes that of the "old Swiss cheese theory". Instead of assuming that people come to a practical nursing program as a "blank slate", we must understand that everyone comes to us with various life experiences--a veritable piece of Swiss cheese; a person with knowledge and with gaps in this knowledge. The difficulty lies in the fact that each person has a different set of previous experiences; it is the task of the school to identify the needs of each individual and then proceed to fill in these gaps without forcing the student to repeat what he already knows. The curriculum must be designed to allow this.

III. GOALS AND OBJECTIVES

The primary purpose of this project as stated in the original proposal is "to develop evaluation, guidance, and tutorial services to maximize the previous medically related experience and education of people and to enable them to be slotted, with advanced standing, into an existing practical nursing program. This would remove some of the barriers which confront people who wish to obtain LPN licensure in Minnesota."

The major goal of the project is "to identify potential candidates, evaluate their existing knowledges, skills and attitudes, offer them appropriate placement in the practical nursing program and to assist them to graduate and to become licensed as Licensed Practical Nurses."

In cooperation with the Anoka-Hennepin Vocational Technical Institute Practical Nursing Faculty, it was decided to focalize upon the following objectives:

1. To prepare materials to evaluate existing knowledges and skills of students entering the practical nursing program.
2. To prepare learning modules designed to allow the student to pace his own learning.

IV. PROJECT APPROACH

A. Individualized Learning

Based on the premise that each student comes into a program with certain knowledges and abilities, the faculty and Project Opportunity decided to use the module approach. This would allow the faculty to evaluate each student and identify areas that need to be "filled in".

1. Task Analysis

The learning modules are based upon task analysis. Task analysis identifies the tasks and related information needed to do a particular job. In order to justify what is being taught, the world of work must be thoroughly examined. This foundation provides for performance-based instruction.

2. Pretest

The pretest is geared to the behavioral objectives of the module. It identifies where the student is in his learning and allows him to proceed from there. If a student meets the criteria previously established, he is not required to take that module and may proceed on to the next module. The student may be exempt from an entire course in the same manner.

3. Behavioral Objectives

These are the criteria by which learning materials are selected, content identified, strategies chosen, and evaluative materials prepared. The objectives identify what it is that the student should be able to do upon completion of the module.

The basic concepts related to behavioral objectives are:

a. All of the tasks must be expressed in terms of action words--the verb is the key word in the statement.

b. Behavioral objectives identify performance necessary to meet the criteria.

c. A behavioral objective must identify the terminal behaviors of the student, the conditions under which the behavior occurs, and the criteria for acceptable performance.

4. Learning Strategies

Learning strategies are the means to the end; the methods used to assist the student to fulfill the requirements of the behavioral objectives. The objectives identify the changes in behavior which are expected of the student and the strategies are the methods by which those changes are brought about.

The basic concepts related to learning strategies are:

a. The purpose of a learning strategy or activity is to provide a meaningful activity which will lead to a specific behavior (the objective).

b. Learning strategies may be optional; the student may be able to meet the objectives in another way.

c. Learning strategies should utilize as many senses as possible, because more learning takes place if sight, hearing, touch, taste, and smell are all used.

5. Evaluation

The student should be provided with an opportunity to evaluate his own progress and the faculty needs to know when a student has mastered the material.

A self evaluation guide is included in the packet to assist the student in deciding if he has fulfilled the objectives of the packet.

A mastery test is then given to the student to determine if he has, in fact, met the criteria for the module. If he passes this test, he proceeds on to the next module. If he does not meet the criteria, he may return to the module and utilize alternate learning strategies to meet the objectives. See Appendix "A" for Flow Chart.

B. Modified Open Entry

After development of modules for much of the first quarter of the practical nursing program, applicants were allowed to challenge those portions of the program. Several persons were exempted from courses and were enthusiastic in their response. Their performance in the remainder of the program and in State Board Examinations did not differ significantly from that of the other members of the class. In fact, the students who were admitted with advanced standing scored higher than did the other students.

V. RESULTS/ACCOMPLISHMENTS

A. Challenge Examinations

Challenge examinations have been initiated in each of the subject areas in cooperation with the faculty. Test pools have been established.

The first challenge examination was given in nutrition on September 10, 1971. All incoming students were informed that there would be an opportunity to challenge out of the nutrition course. Those respondents who wished information were sent an outline and the name of the nutrition textbook. There were thirty-five students who actually took the challenge examination and fifteen were exempt. The individual with the highest score took the challenge examination without any preparation apart from life's experience. She was 54 years old and had experience as a nurse aide as well as having completed the psychiatric technician program at Anoka AVTI.

In 1972-73, fourteen day students and nine evening students were exempt from the nutrition course after successfully passing the challenge examination. Students had the option of challenging any of the courses in the practical nursing program.

In 1973-74, fifteen students successfully challenged the nutrition course. The basic nursing course was challenged for the first time and six out of seven successfully passed the written test. Students were evaluated clinically along with the regular students. Three of the six challengers were waivered practical nurses who were already licensed but wanted to graduate from an accredited school. The waiver license has proven to be self-limiting as far as job performance and job potential. Five students were also exempt from the mental health and geriatrics course because of previous work experience. These individuals did not take a written examination.

B. Practical Nursing Modules

The entire practical nursing curriculum is now in modules*. When the project was initiated in 1971-72, the project director developed the modules while working with each individual instructor. By 1972-73, faculty development meetings demonstrated that the majority of the faculty were capable of writing modules with minimal assistance from the project. In 1973-74, the faculty, with

* See Appendix "B", Practical Nursing Modules.

project assistance was able to complete the remaining part of the curriculum (approximately 50%). Individual faculty members responsible for various courses spent long hours beyond the normal work day developing their particular modules. Faculty enthusiasm and dedication have been major factors in the successful completion of Project Opportunity.

These modules are in a constant state of revision as implementation sheds new light upon the objectives and strategies. All of the modules have been implemented and evaluated except Nursing of the Childbearing Family which will be used in the fall of 1974.

C. Core Curriculum Development

Initially, Project Opportunity recognized the need for the development of a core curriculum which would provide for greater career mobility laterally. In 1972, a core curriculum coordinator was added to the staff. The framework for Project Opportunity's concept of core comes from the three broad areas from which vocational instruction is derived: the individual, society, and world of work. All of the planned core modules have been developed and implemented primarily by health occupations programs*. However, all of the programs at Anoka AVTI have access to these materials which may be used in their individual programs or cooperatively with another program.

* See Appendix "C", Concept of Core Curriculum in Health Occupations.

D. Secondary Health Careers

In 1972, a pilot project was initiated in health careers at the Blaine High School within the Anoka-Hennepin School District (Economic Region No. 11). A curriculum plan was developed and implemented by the core curriculum coordinator*. It is being considered as a statewide curriculum guide for high school exploratory programs. In the fall of 1974, the Anoka-Hennepin school district will expand this innovative health careers program to incorporate all of the existing high schools (3).

E. Surgical Technician Program

As an outgrowth of the individualized approach in practical nursing, the surgical technician program became interested in developing modules specific to their program. The project director has helped with the development of behavioral objectives and the staff developed their own packets**.

F. Pilot Project--Dakota County

Dakota County Area Vocational School initiated a new practical nursing program in the fall of 1972. The director of that program requested that she be allowed to use the available Project Opportunity modules. This was approved by the State Board of Nursing.

* See Appendix "D", Health Careers Curriculum.

** See Appendix "E", Surgical Technician Packets.

The purpose of the pilot project was to determine if materials developed by this project could be adapted to other schools. The modules used were for Personal and Vocational Relationships and Nutrition.

VI. EVALUATION

A. Student

The class of 1971-72 was 102 in number with the oldest student being 62 years old, while the youngest was 17 years old. The median average age was 27 years. The 1971-72 attrition rate was 17 and the 1972-73 attrition rate was 10. State Board results were favorable with all but two passing at the initial testing. The standard mean for this class was 547.6, compared to 505.4 the previous year. The 1970-71 class had eleven students fail the initial State Board Examination. While this was a significant improvement in State Boards, Project Opportunity cannot prove conclusively at this point that these results were directly related to our innovative approach. However, it is felt that this was a positive indicator and as the entire curriculum is individualized, the evidence will be more concrete.

The class of 1972-73 was 110 in number with the oldest student being 52 years old and the youngest 17. The median age was 24. There were two male students in the class and 62 of 110 had previous experience in the health field. The 1972-73 attrition rate was 10 with three students being dropped for academic reasons, three for health reasons, and four for poor clinical performance. State Board

results show that all but seven passed at the initial testing and the standard mean was 541.6. The uniqueness of the students was evidenced by their varied backgrounds as well as their different interests. This group of students was very expressive and were actively and enthusiastically involved in our innovative approach.

Seven students were given advanced standing in the practical nursing program. Three of the four did not complete for personal reasons. The other four completed successfully and their State Board results show that they averaged 630.3. The staff feels that this clearly justifies giving advanced standing for previous experience and/or education.

The class of 1973-74 was 111 in number with the oldest student being 56, while the youngest was 18 years old. The median age was 23 years. The 1973-74 attrition rate was nine. The students were all female and 43 had previous experience in the health field. State Board results will not be available until the latter part of August. Six out of seven successfully challenged the Basic Nursing course. Three of the six were already licensed as waivered practical nurses. Fifteen challenged Nutrition, one challenged Body Structure and Function and five students were exempt from the mental health and geriatrics course because of previous experience.

B. Student Evaluation of Modules

In an overall evaluation of the modules, the class of 1973-74 (only class to have almost all modules) generally liked modules (95 students) while some (6) preferred the lecture approach. There was a great deal of pressure applied by students to instructors to encourage them to get their particular course into modules. Students provided the needed impetus the faculty needed to complete the curriculum.

C. Student Comments

"At the beginning of the year they were very complicated. It took me awhile to adjust to them."

"It was such a different form of learning compared to high school."

"At the beginning it was an adjustment, but when I got used to them, I liked them."

"At first I didn't know how to use the modules--I was used to getting assignments from books and hearing lectures."

"The modules were super terrific for learning what we were expected to know."

"I have used modules before and I like them very much."

"Try to organize pediatrics into learning packets so we can know what is expected of us."

D. Faculty

The faculty of the practical nursing program is sixteen in number with a wide range of nursing and teaching experience. It has proven to be a very cohesive group not satisfied with the status quo. They are not afraid of change, but neither do they seek change without careful analysis of the situation. The relationship between the faculty and the project has been constructive and cooperative on the part of both. The measure of success that Project Opportunity has experienced is directly the result of an enthusiastic and dedicated faculty.

E. Faculty Comments

"Project Opportunity has been effective in challenging our practical nursing faculty to make use of innovative teaching methods. It has required a self evaluation of our course objectives and content. The single most important feature has been the deletion of unnecessary details and has forced us to really focus on the role of the licensed practical nurses. Students have requested that more of the curriculum be put into individualized packets. This, we feel, is a healthy sign."

"This approach teaches students how to use resources. Feel that more instruction is needed to orient students more quickly to this approach. It's an exciting way of teaching."

"The modules are clear, concise, and effective in teaching the principles and objectives for each part of the course. I feel strongly about using them because:

1. It allows the student to know what is expected of him, what he must learn, and what to expect on tests.
2. The 'organizational' aspect of them is terrific! No looseleaf notes flying around or lost--no wondering if you caught the important points of a lecture or not."

F. Dakota County Evaluation

"The faculty of Dakota County Area Vocational Technical Institute are most appreciative for the opportunity to pilot some of the modules which the Anoka TEC staff have developed for Practical Nursing."

"We found the format of the modules readily understandable and the content relevant to the level of instruction. Changes were made to adapt to our school and our philosophy which posed no problem since ample flexibility is built into the modules to facilitate adaptability to any practical nursing program. Successful experience in using the modules will depend on the faculty acceptance of the new approach and the availability of assistance in becoming familiar with the new method."

The reaction of the students when introduced to this new method of instruction was varied. Some welcomed the opportunity to work more independently, others needed much guidance. Using the modules does not omit the necessity for formal classes, but does lend to more flexibility and opportunity to deal with individual needs. The general trend of opinion among the students following the experience was a favorable one."

G. Evaluation of Core Curriculum

Core materials developed by Project Opportunity have been used widely in the health occupations department. The modules on job application, job satisfaction, etc., have been used by other departments such as automotive and business. Staff reports are favorable regarding adaptability and utilization. The demand for modules indicates that they are being used in a variety of ways.

H. Evaluation of Secondary Health Careers

The pilot project at Blaine High School was open to sophomore students. The exploratory health careers was innovative in its individualized approach. Students were granted an elective credit and a science credit for participating in this program. Results of student evaluations were as follows:

QUESTION	YES RESPONSE	NO RESPONSE
1. Is ExHC what you expected?	9	3
2. Did you like the individualized approach?	12	0
3. Do you feel ExHC is valuable enough to be put into the curriculum next year?	12	0
4. Do you feel it should be offered to:		
sophomores?	12	0
juniors?	12	0
seniors?	12	0

VII. CONCLUSION, IMPLICATIONS AND RECOMMENDATIONS

The final year for Project Opportunity was directed toward meeting priorities established for 1973-74. This year the project was able to:

1. complete the practical nursing curriculum into modules.
2. use existing modules in evening program.
3. pilot materials in various programs around the state.

4. complete the core curriculum plan.
5. pilot core materials in a high school exploratory program.
6. provide a workshop for interested P.N. programs on utilization of modules.

The faculty determined early in the project that the best approach would be to develop the behavioral objectives and learning strategies in as many areas of the curriculum as possible and often the content that has been developed works out more autotutorial materials. This decision was made primarily because of the time involved in developing audiovisual materials. It also allows for use of content by other schools who, in turn, will develop autotutorial materials to meet their needs. As the project concludes, the faculty recognizes the need to further revise and modify the modules as well as develop audiovisual materials to enhance the entire individualized curriculum.

It has taken a full three years to individualize the curriculum. Progress was slow in the beginning and no one was forced to adapt to the new approach. Student response has been the major motivating factor for faculty acceptance.

The role of the instructor is greatly changed in the individualized approach. He is no longer a giver of information, but rather a facilitator of learning. He is a designer of learning objectives and strategies. The instructor becomes a consultant to the learner.

Outcomes of the individualized approach as observed by Project Opportunity.

1. Students are given credit for what they already know.

2. Students may progress at their own rate.
3. Students can readily identify what they need to know.
4. Instructor has more time for slower students.
5. Students assume more responsibility for their own learning.
6. It allows for individuality of student.
7. It allows for creativity and individuality of the instructor.
8. It helps the student move toward the ideal of self directed learning.

Disadvantages of the individualized approach as observed by Project Opportunity.

1. It is costly and time consuming to develop.
2. Implementation requires effort and planning--possibly more than with the traditional approach.
3. Implementation requires a competent teacher who is not afraid to make changes.
4. Many instructors are threatened by this approach.
5. Individualized learning must not be interpreted as independent study alone.

There are many different ideas and concepts regarding individualized learning. Any faculty seriously considering individualizing must decide what individualization means to them. Basic to our concept is that a student may learn at his own rate, at his own time of day, by different methods and different things. Our goal is to meet individual needs and to provide for individual differences.

As Project Opportunity concludes, it is recommended that:

1. The P.N. program use modules one more year within the time frame of a transitional program.
2. Open entry-open exit be seriously considered after staffing patterns and clinical facilities have been evaluated for a year round program (cost factor).
3. Audiovisual materials be developed to enhance existing modules.
4. Modules continue to be revised according to specific needs of programs.
5. Core materials be used by more health occupations programs.
6. Other health occupations programs consider individualizing their specific programs.
7. Consultant services be made available to programs who want to individualize.
8. Further evaluation of this approach be continued on an on-going basis.

VIII. DISSEMINATION

A. In-State Workshops

Project Opportunity developed a two-day workshop which was conducted around the state of Minnesota during 1973-74*. The schedule for the workshops and locations were as follows:

Date	Location	P.N. Educators Attending	Other
August 29-30	Mankato AVTI	18	75**
September 18-19	Willmar AVTI	12	
October 9-10	Detroit Lakes AVTI	10	
October 30-31	Itasca Com. College	13	
November 13-14	Anoka AVTI	24	
February 20-21	Dakota County AVTI	16	
January 21-22	Anoka AVTI		14
Totals		113	89

B. Out-Of-State Workshops

Project Opportunity conducted workshops out-of-state upon request during 1973-74. The expense of these workshops was paid by institutions involved.

Date	Location	Health Occupations Educators
August 16-17	Sioux Falls, S. D.	50
October 23-24	Fargo, N.D.	26
***March 21-22	Amana, Iowa	200
Totals		276

Response to the workshop was highly favorable and Project Opportunity has received many requests for assistance at a local level (on-site consultation service). This is being considered for next year.

* See Appendix "F", Schedule of Individualized Instruction Workshop.

** Mankato AVTI attended only the first morning of the first day.

*** Consultants at workshop on individualized instruction.

C. Requests for Materials Developed By Project Opportunity

Requests for information and materials have come from all over the country. Mrs. Caroline Rosdahl, Supervisor of Health Occupations, and the project director spoke at the N.L.N. Convention in May of 1973 and Project Opportunity received many requests as a result. An article regarding Project Opportunity appeared in the C M Critiques which resulted in requests for materials. An article entitled "Practical Nursing is Alive and Well" by Mrs. Caroline Rosdahl appeared in the American Vocational Association Journal in April, 1974 and resulted in several requests.

Source	Out-of-State	In-State
N.L.N. Convention	67	46
CM Critiques	30	
A.V.A. Article	8	
Totals	115	46

D. Modules

Modules have been disseminated widely in Minnesota as well as out-of-state. The materials are sent to any school requesting them for only the cost of reproduction. Individuals requesting materials are advised of the workshop that is available to assist in implementation or adaptation of materials.

E. Project Opportunity Questionnaire

A survey was sent to 85 individuals receiving materials from Project Opportunity. Only 48 surveys were returned and the results were as follows:

1. Which of the following modules developed by Project Opportunity do you presently have?

38	Body Structure and Function	13	Nursing of Children
22	Geri-Psych Nursing (Psychosocial & Physical Disabilities)	0	Nursing and the Childbearing Family
35	Basic Nursing	0	Technoterm
33	Nutrition	4	Community Health
25	Cardiopulmonary Resuscitation	8	Communications
35	Personal & Vocational Relationships	2	Responsibilities of the L.P.N.
14	Care of the Adult	6	Health Core Modules

2. What type of program do you have?

1	O.T.A.	1	Medical Office Assistant
41	Practical Nursing	0	Medical Receptionist
2	Surgical Technician	1	Hospital Station Secretary
4	Nurse Aide	3	Laboratory Technician
0	Psychiatric Technician	1	X-Ray Technician
1	Medical Secretary	8	Other, please indicate
1	Respiratory Therapy Technician		Hospital Ward Clerk Health Occupations Secondary Health Occupations Health Service Assistant Dental Assistant Health Career Exploratory

3. Which of the following modules have you used in your particular program? Please mark even if you have used only some of the modules.

21 Body Structure and Function

9 Geri-Psych Nursing (Psychosocial & Physical Disabilities)

18 Basic Nursing

15 Nutrition

6 Cardiopulmonary Resuscitation

10 Personal & Vocational Relationships

6 Care of the Adult

6 Nursing of Children

0 Nursing and the Childbearing Family

0 Technoterm

1 Community Health

2 Communications

1 Responsibilities of the L.P.N.

3 Health Core Modules

4. How did you use the modules?

5 As written by Project Opportunity.

25 Adapted them to fit my needs.

20 Used only parts of the modules.

4 Have not used them at all.

5. How did you use the modules in the classroom? (You may mark more than one).

20 Allowed students time to work independently as well as in groups.

8 Allowed all students to work at their own rate.

3 Allowed selected students to work at their own rate.

14 Kept the students together in their learning.

22 Used these materials with the lecture approach.

3 Allowed students to test out if they wanted to.

21 Provided additional learning strategies.

6. What is your response to using the modules?

16 Felt they were very effective.

1 Felt they were very ineffective.

20 Felt that it was a beginning--need more time to get used to this approach.

10 Felt that the materials easily adapted to my situation.

2 Felt that materials did not adapt to my situation.

6 Feel that I need more inservice to really implement these modules in an individualized way.

8. How did your students respond to the modules?

17 Liked them for the most part.

5 Did not like the modules.

8 Prefer to have the teacher lecture.

5 Prefer to work more independently.

5 Did not like working independently.

1 Felt that the material was too hard.

0 Felt that the material was too easy.

15 Liked the objectives and knowing what was expected of them.

0 Felt that objectives could have been more specific.

3 Prefer the traditional approach.

9. Have you shared these materials with others on your staff?

35 Yes 3 No

10. How does your administration feel about the individualized approach?

23 Favorable

1 Unfavorable

7 Cautious

15 Interested

7 Enthusiastic

18 Supportive

Staff of Project Opportunity

Caroline Rosdahl
Supervisor of Health Occupations Education

Donna Richardson
Project Director

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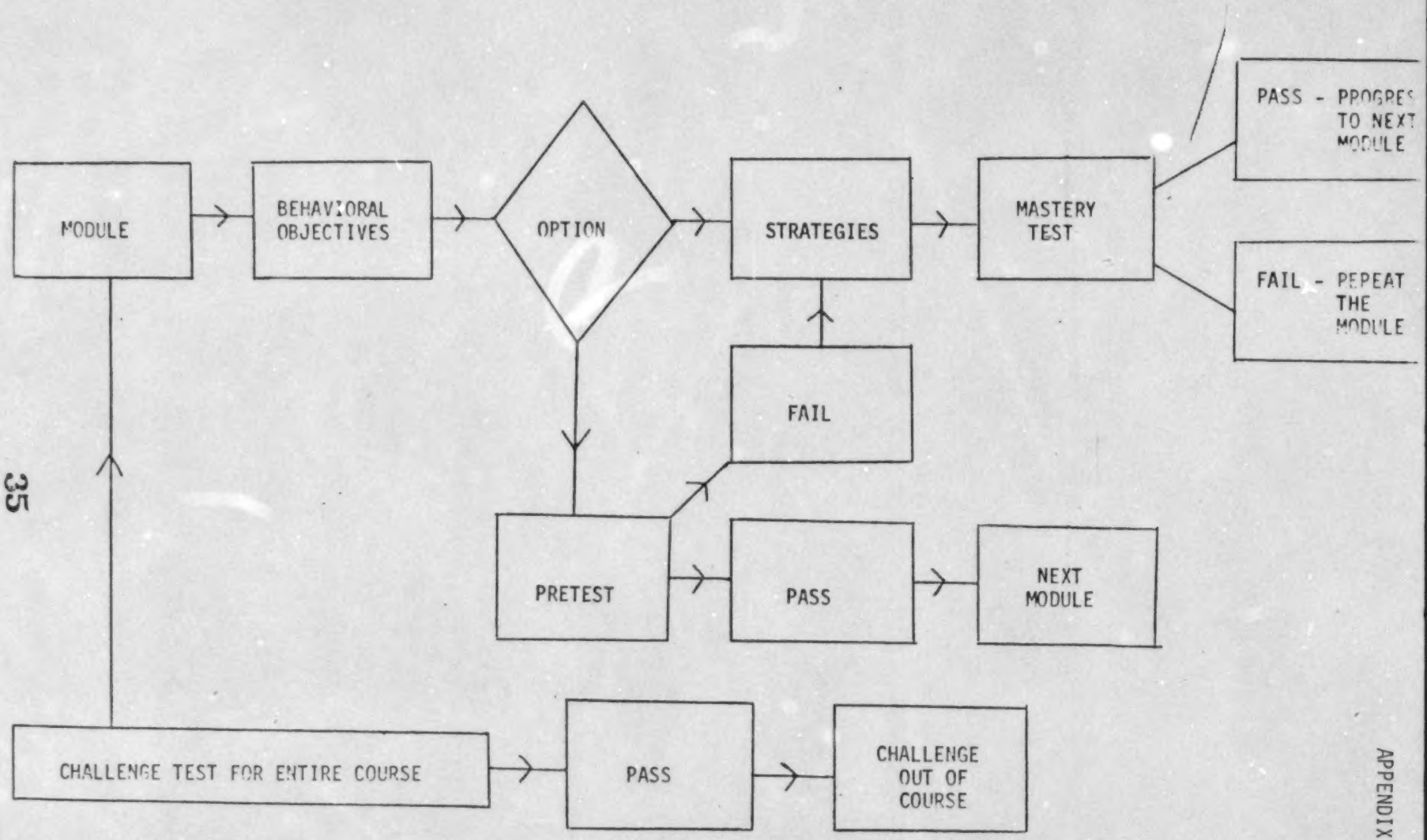
Core Curriculum Coordinator

Karen Celestino
Challenge Facilitator

BASIC FLOW CHART OF MODULE CONCEPT



APPENDIX A

PRACTICAL NURSING MODULES

BASIC NURSING

Module 1: Nursing Activities Related to the Individual's Need for Psychosocial Adjustment
Module 2: Nursing Activities Related to the Individual's Need for Comfort and Safety
Module 3: Nursing Activities Related to Activity and Exercise
Module 4: Nursing Activities Related to Intake and Utilization of Nutrients
Module 5: Nursing Activities Related to Elimination
Module 6: Nursing Activities Related to Rest and Sleep
Module 7: Nursing Activities Related to the Individual's Need for Oxygen
Module 8: Nursing Activities Related to the Individual's Basic Needs as He Meets the Demands of Life and Death
Module 9: Basic Pharmacology
Module 10: Basic Pharmacology

BODY STRUCTURE AND FUNCTION

Module 1: Organization of the Body
Module 2: Musculoskeletal System
Module 3: Respiratory System
Module 4: Circulatory System
Module 5: Digestive System
Module 6: Endocrine System
Module 7: Urinary System
Module 8: Human Reproduction
Module 9: Nervous System
Module 10: Sense Organs

CARDIOPULMONARY RESUSCITATION

CARE OF THE ADULT

Module 1: The Body's Response to Illness
Module 2: Application of Asepsis in Special Procedures
Module 3: The Student Practical Nurse's Role in the Administration of Medications
Module 4: Clinical Medication Rotation
Module 5: Assisting the Adult Who Is Having Surgery
Module 6: Assisting the Adult With a Musculoskeletal Disease (Orthopedic Nursing)

CARE OF THE ADULT (continued)

Module 7: Assisting the Adult With a Respiratory Disease
Module 8: Assisting the Adult With a Blood or Cardiac Disease
Module 9: Assisting the Adult With Cancer
Module 10: Assisting the Adult With a Vascular Disease
Module 11: Assisting the Adult With a Digestive Disease
Module 12: Assisting the Adult With a Disorder of the Gallbladder and Liver
Module 13: Assisting the Adult With a Urinary Disease
Module 14: Assisting the Adult With an Endocrine Disease
Module 15: Assisting the Adult With a Skin Disease and Allergies
Module 16: Assisting the Adult With a Nerve Disease
Module 17: Assisting the Adult With a Disorder of the Sensory Organs

COMMUNICATIONS

Module 1: Communication Skills
Module 2: Spiritual Needs
Module 3: Basic Needs

COMMUNITY HEALTH

GERI-PSYCH NURSING

Module 1: Introduction to Geri-Psych Nursing
Module 2: The Individual

NURSING OF CHILDREN

Module 1: Introduction to Nursing of Children
Module 2: The Child's Need for Nourishment and Elimination
Module 3: Nursing Activities Related to the Pediatric Patient's Need for Oxygen
Module 4: Nursing Activities Related to the Pediatric Patient's Need for Psychosocial Adjustment
Module 5: Nursing Activities Related to the Pediatric Patient's Need for Activity and Exercise
Module 6: Nursing Activities Related to the Pediatric Patient's Need for Comfort and Safety
Module 7: Meeting the Special Needs of the Pediatric Patient

NUTRITION

PERSONAL AND VOCATIONAL RELATIONSHIPS

Module 1: Introduction to P.V.R.
Module 2: Role of the L.P.N.
Module 3: History and Development of Medicine and Nursing

RESPONSIBILITIES OF THE L.P.N.

TECHNOTERM

Module 1: Leadership Responsibilities for the L.P.N.
Module 2: Making Assignments
Module 3: Team Conference and Nursing Care Plans
Module 4: Transcribing Orders
Module 5: Telephone Orders
Module 6: Technoterm Clinical

CONCEPT OF CORE CURRICULUM IN HEALTH OCCUPATIONS

Vocational education identifies three broad areas by which instructional content is derived. These areas include the individual, society and the world of work. They are our framework for our concept of core curriculum.

Accepting the premise that there are commonalities in the basic knowledge that all health workers should attain, we have developed the following concept of core.

I. INDIVIDUAL

A. Overview of Health Careers

Introduction to many health careers. These careers are divided into supportive health services and direct patient care.
*Filmstrip available.

B. Student

Module 1: Student as a Health Worker
Module 2: P.E.O.P.L.E. (People Enrich Other People's Lives Everyday!)
Unit A: Introduction to Communications
Unit B: Introduction to Human Relations
Module 3: Ethics

C. Patient

Module 1: Basic Needs
Module 2: Safety
Module 3: Life and Death

D. Basic Sciences

The following is a suggested list of possible core courses from which the various programs could decide which of them, or parts of, they could utilize.

1. Body Structure and Function (BSF)
2. Anatomy and Disease Conditions
3. Nutrition
4. Life Span (normal growth and development, young adult, middle years and senescence)
5. First Aid

* Filmstrip available in Media Center

E. Employment

Module 1: Job Seeking
Module 2: Job Application
Module 3: Letters pertaining to Employment
Module 4: Personal Interview
Module 5: Job Satisfaction

II. SOCIETY

An awareness to the status of:

Module 1: Community Health

Unit A: Social Problems
Unit B: Health Care Delivery
Unit C: Legal Aspects of the Health Field

III. WORLD OF WORK

Health Occupations tasks geared to the basic needs:

Module 1: Comfort and Safety

Includes: Asepsis
- Handwashing
- Isolation

Personal Care
- a.m., p.m., and hs care
- back care
- oral hygiene
- hair care

Baths
- shower
- tub
- Sitz
- bed

Bedmaking
- unoccupied
- occupied
- closed
- surgical

Vital Signs
- blood pressure
- temperature
- apical and radial pulse
- respiration

Bandages and Binders
- ace bandages
- abdominal binder
- scultetus binder
- T-binder
- rib belt
- sling

Hot and Cold Applications
- Aqua K
- cold compresses

Module 2: Activity and Exercise

Includes: Body Mechanics
Admission, Transfer and Discharge
Passive Range of Motion (PROM)
Positioning
Transfer Techniques

Module 3: Nutrition

Includes: Serving and Feeding Patients
Intake and Output

Module 4: Elimination

Includes: Enemas
- soap suds
- tap water
- Fleets
- oil retention
- suppositories and rectal tubes
- catheter care
- specimen collection (stools, urine and sputum)
- urine testing

Module 5: Oxygen
Module 6: Charting
Module 7: Administration of Medications
Module 8: Cardipulmonary Resuscitation

PROJECT OPPORTUNITY

CORE CURRICULUM
WORLD OF WORK

	Nursing Assistant	Human Services Assistant	Surgical Technician	Practical Nursing	Occupational Therapy Asst.	Inhalation Therapy Asst.	Urologic Assistant	Medical Secretary	Medical Office Assistant	Hospital Station Secretary	Medical Receptionist	Medical Records Technician
Handwashing	x	x	x	x	x	x	x	x	x	x	x	x
Isolation Technique		x	x	x	x	x	x					
Personal Care	x	x		x								
Baths	x	x		x								
Bedmaking	x	x		x					x	x		
Blood Pressure	x	x	x	x			x		x			
Temperature, Pulse & Respirations	x	x	x	x			x		x	x		
Bandages and Binders	x	x	x	x			x		x			
Body Mechanics	x	x	x	x	x	x	x	x	x	x	x	x
Admission, Transfer and Discharge	x	x		x								
Passive Range of Motion (PROM)	x	x		x	x							
Positioning	x	x	x	x	x	x	x		x			
Transfer Techniques	x	x	x	x	x	x	x		x	x	x	
Serving and Feeding Patients	x	x		x								
Intake and Output	x	x		x								
Enemas	x	x		x								
Catheter Care				x			x					

	Nursing Assistant	Human Services Assistant	Surgical Technician	Practical Nursing	Occupational Therapy Asst.	Inhalation Therapy Asst.	Urologic Assistant	Medical Secretary	Medical Office Assistant	Hospital Station Secretary	Medical Receptionist	Medical Records Technician
Specimen Collection	x	x		x		x	x		x		x	
Urine Testing	x	x		x			x		x		x	
Hot and Cold Application	x	x		x			x		x		x	
Use of oxygen				x		x	x		x		x	
Charting	x	x		x								
Transcription								x				
Administration of Medications		x		x		x			x			
Cardiopulmonary Resuscitation	x	x	x	x	x	x	x	x	x	x	x	x

PROJECT OPPORTUNITY

CORE CURRICULUM
INDIVIDUAL AND SOCIETY MODULES

	Nursing Assistant	Human Services Asst.	Surgical Technician	Practical Nursing	Occ. Therapy Asst.	Inhalation Therapy Asst.	Urologic Assistant	Medical Secretary	Med. Office Assistant	Hospital Station Sec.	Medical Receptionist	Med. Records Tech.
Overview of Health Occupations	x	x	x	x	x	x	x	x	x	x	x	x
Student as a Person	x	x	x	x	x	x	x	x	x	x	x	x
P.E.O.P.L.E. (Commun., Human Relations)	x	x	x	x	x	x	x	x	x	x	x	x
Ethics	x	x	x	x	x	x	x	x	x	x	x	x
Basic Needs	x	x	x	x	x	x	x	x	x	x	x	x
Safety	x	x	x	x	x	x	x	x	x	x	x	x
Life and Death	x	x	x	x	x	x	x	x	x	x	x	x
Body Structure and Function			x	x	x	x	x	x				x
Anatomy and Disease Conditions	x	x							x	x	x	
Nutrition	x	x	x	x	x	x	x	x	x	x	x	x
Normal Growth and Development	x	x	x	x	x	x	x	x	x	x	x	x
First Aid	x	x	x	x	x	x	x	x	x	x	x	x
Health Care Delivery	x	x	x	x	x	x	x	x	x	x	x	x
Preventive Maintanence	x	x	x	x	x	x	x	x	x	x	x	x
Community Resources	x	x	x	x	x	x	x	x	x	x	x	x
Public Protection	x	x	x	x	x	x	x	x	x	x	x	x
Job Application	x	x	x	x	x	x	x	x	x	x	x	x
Job Satisfaction	x	x	x	x	x	x	x	x	x	x	x	x
Employer Satisfaction	x	x	x	x	x	x	x	x	x	x	x	x

These modules are "knowing units" which include supplementary information that is necessary for the ultimate performance of tasks within the health occupations world of work.

HEALTH CAREERS CURRICULUM

SITUATION	OCCUPATIONS	FILMS	CONTENT (MODULES)	POSSIBLE FIELD TRIPS AND MISC.
I. Orientation	Overview of Health Careers	*"Overview of Health Careers", filmstrip Health Careers films and filmstrips: "From Cells to Living Organisms", "From Generation to Generation" genetics Telephone Company films	Core Module: Overview of Health Careers Core Modules: Student I, II, III BSF: Organization of the Body and Skin, terminology, diagnostic tests and abnormal conditions	Hospital Tour Contract, Questionnaire, Bulletin Board, Research Project on career choice
II. "A Simple Physical Exam"	Medical Secretary Nurse Receptionist front and back office EKG Tech Audiologist Optometrist Medical Office Assistant Mortician	"Living Insurance" "Rx for Life", "Working of the Heart", "Dehumanization", "Understanding Stresses and Strains"	Core Modules: Patient I, II, III BSF of the Cardiovascular System, Eye and Ear, terminology, diagnostic tests and abnormal disorders H.C. Modules: 1. A Simple Physical Exam 2. Tasks: TPR, BP, Height & Weight, Metric System	Doctor's Office and Mortuary Tour Project: Assist with hearing and vision testing at school
III. "Fracture of the Tibia"	Ambulance Driver and attendant Admitting clerk Nurse Physician & P.A. Orderly-aide X-ray Tech	"Diary of Connie McGregor", "The Kenny Story", "Light in the Shadows" (x-ray) "Target", "Making a Difference" (OTA)	BSF of the Muscular-Skeletal System, terminology, diagnostic tests and abnormal disorders H.C. Modules Tasks: Splint	Tour of Admitting, ER, X-ray, Kenny Rehabilitation (equip) Radiology Speaker Winkley Prosthetic Co. speakers

* filmstrip developed by Anoka TEC

SITUATION	OCCUPATIONS	FILMS	CONTENT (MODULES)	POSSIBLE FIELD TRIPS AND MISC.
III. "Fracture of the Tibia" (continued)	Occupational Therapy Physical Therapy Rehab-orthotist prosthetist correctional therapist Business Office	AIM's - filmstrip on front and back office workers "Seven for Suzie" (rehab. careers) "Mrs. Reynolds Needs a Nurse"	application, Bandages and Binders Crutch Walking	Prosthetist and orthotist Physica Therapist speaker and demonstration of crutch walking Cast application Speaker--ambulance driver
IV. "Acute Appendicitis"	Medical Records Ward Clerk Nursing Personnel Food Service People Lab Personnel Anesthetist O.R. Crew PAR nurse Pharmacy Engineer Laundry Administration Business Personnel Dentist Dental Hygienist	"Fundamentals of Aspesis", "Hospital Asepsis In a Medical Laboratory" "The Human Cell and Cytotechnologist" "Facts About Backs"	Core Modules Asepsis with handwashing Normal nutrition BSF of the Gastrointestinal system with terminology, diagnostic tests and abnormal conditions HC Modules Tasks: Body Mechanics, Positioning and Transfer, Passive Range of Motion, Hot and Cold Packs, Sterile gowning and gloving, Sterile dressings	Lab - (guest speaker and/or tour) Culture - fingers etc. Blood type

SITUATION	OCCUPATIONS	FILMS	CONTENT (MODULES)	POSSIBLE FIELD TRIPS AND MISC.
V. "Emphysema"	Inhalation Therapist	"Pulse of Life" "First Aid Now"	BSF of the Respiratory System with terminology, diagnostic tests and abnormal conditions H.C. Modules Oxygen Therapy Cardiopulmonary Resuscitation	Guest - Ms. Lucchi Respiratory Disease Assoc. Tour or Guest Mercy Hospital Inhalation Therapist Extra Credit: Pollution and Ecology
VI. "Diabetes"	Dietition Dietary Aide	"Understanding Diabetes" "Diabetes and You"	BSF of the Endocrine System, terminology, diagnostic tests and abnormal conditions H.C. Modules Tasks: Urine testing	Laboratory Tour
VII. "Renal Failure"	Technician		BSF of Excretory System with terminology, diagnostic tests, abnormal conditions	Kidney unit
VIII. "Childbirth"	Public Health Social Workers	"Childbirth" "Seasons" (geriatrics)	BSF of Reproductive System with terminology, diagnostic tests and abnormal conditions H.C. Modules Life Span	Tour of Labor and Delivery Baby pictures

SITUATION	OCCUPATIONS	FILMS	CONTENT (MODULES)	POSSIBLE FIELD TRIPS AND MISC.
IX. "Drug Abuse"	EEG Tech Psychiatrist Psychologist Counselors Community Health Workers Rehabilitation A.A., Drug Centers etc.	"Bitter Welcome" "The Social Side of Health" (MH) "How Are You"	Mental Health BSW of the Nervous System with terminology, diagnostic tests and abnormal conditions Multi-media first aid Mental Retardation	Mental Retardation Drop-in Center Free Clinic Glenwood Hills - music therapy Students visit and report on free clinics, planned parenthood, MCCL, community service people, drug centers, Pharm House Outreach
X. "Community Services"	Public Health Department Nursing Home Chiropractor Osteopathy Podiatry Dentistry Mortician Nursery School Montesorri Optometrics Day Care Child Care Asst. Pharmacist - drugstore Veterenarian Cosmetology Environmental Careers	"Engineering Your Health", "P.H. Career for Engineers"	Common Communicable Diseases Employment: A. Job Seeking B. Job Application C. Letters Pertaining to Employment D. Personal Interview E. Job Satisfaction Community Health (social problems, health care delivery, legal aspects of a health field)	Mantoux clinic Sanitary Engineer from Anoka-speaker Drug store study Research different health departments, PHN, Home Health Aide, Well Baby Clinic, Rescue Squad, Nursing Home and Extended Care Center

SURGICAL TECHNICIAN PACKETS

Appendectomy
Biliary Tract Surgery
Surgery of the Breast
Burns: Classifications, Care and Treatment
Cardiac Surgery
Cranial Surgery
Surgery of the Ear
Eye Surgery
Surgery of the Gastro-Intestinal Tract
Genitourinary System
Gynecological
Repair of Hernias
Hip and Femur Surgery
Lower Gastro-Intestinal Tract and Anal Surgery
Nasal Surgery
Neurosurgical Procedures
Gynecology and Obstetrical Surgery
Excision of Pilonidal Cyst
Skin Grafting
Neurosurgical Procedures Performed Upon the Spine and Vertebral Column
Thoracic Surgery
Thyroidectomy and Parathyroidectomy
Tonsillectomy and Adenoidectomy
Vascular Surgery
Vein Stripping

INDIVIDUALIZED INSTRUCTION WORKSHOP

FIRST DAY

8:30 - 9:00	Registration (coffee)
9:00 - 9:15	Introduction to Conference
9:15 - 10:00	Break
10:00 - 12:00	Steps to Individualizing Learning
12:00 - 1:30	Lunch
1:30 - 3:00	Group Session: Writing Learning Packets
3:00 - 3:30	How Does It All Fit Together?

SECOND DAY

9:00 - 10:00	Writing Contracts
10:00 - 10:30	Coffee and rolls
10:30 - 11:30	Implementation of Learning Packets
11:30 - 12:00	Question and Answer Time
12:00 - 1:00	Lunch
1:00 - 2:30	Core Curriculum in Health Occupations
2:30 - 3:30	Summary and Evaluation of Workshop